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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,724	09/29/2006	Masahiro Tsushima	107156-00350	9400
4372	7590	07/21/2010	EXAMINER	
ARENT FOX LLP			GUARINO, RAHEL	
1050 CONNECTICUT AVENUE, N.W.				
SUITE 400				
WASHINGTON, DC 20036				
			ART UNIT	PAPER NUMBER
			2611	
			NOTIFICATION DATE	DELIVERY MODE
			07/21/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/594,724	TSUSHIMA, MASAHIRO	
	<b>Examiner</b>	<b>Art Unit</b>	
	RAHEL GUARINO	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. This office action is in response to communication filed on 5/3/2010.

### ***Response to Arguments***

#### **Applicant arguments**

**a)** The storage unit of Claim 10 contains matching information for indicating matching relationship between physical information for indicating reception quality and the data types of the stream signals on the respective channels. According to the Examiner, Freeman discloses the storage unit (RAM/ROM) that contains user's input and profile information (see Freeman [0083]). However, the data (user's input and profile information) stored in the RAM/ROM is completely different from data stored in the storage unit of claim 10.

**b)** Moreover, Freeman does not teach nor suggest a feature which determines the matching relationship between the physical information and the data type of the selected channel based on the stored data in the storage unit.

### Examiner's response

**a)** Applicants are reminded that the Examiner is entitled to give the broadest reasonable interpretation to the language of the claim. So the Examiner considers "The *storage unit matching information for indicating matching relationship between physical information for indicating reception quality and the data types of the stream signals on the respective channels*" is "*the data (user's input and profile information) stored in the RAM/ROM, which includes such as video streams user's preferred input*" within the broad meaning of the term. The Examiner is not limited to Applicant's definition. In re Tanaka et al, 193 USPQ 139, (CCPA) 1977.

**b)** Freeman discloses a storing unit (120) stores matching information the data types of the stream signals (*user's input and profile information, where the stored is information user's preferred such streams on the respective channels* (see figure 6 and para#107; during reception the switching occurs during the gap (340). By encoding at a lower rate than the capacity, extra time is created at GOP (group of pictures) and switches (*seamless switching*) to the stream signal on another channel (para#190; *seamless switching from digital data stream in channel A to another digital data stream channel B*).

2. Applicant's arguments have been fully considered but they are not persuasive.

3. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

4. In this case, Freeman discloses information separating unit (*demux 106A/B*) for separating (*multiplexed signals are separated into respective devices*) ;a decoding unit (*110 A/B*) for decoding stream signals and a control unit (*microprocessor;108*) for controlling the selection of the RF channel that is demodulated by the demodulator (see rejection for details)

Grau teaches channel selection based on quality measurements (*col. 11 lines 21-29; the quality is selected by CAU, or computer program executing on a data processing connected to communication system*)

By modify Freeman to further include Grau's channel selection based on quality measurements would have been rendered obvious to one skilled in the art.

Furthermore, Freeman and Grau are in the same field of endeavor.

5. Applicant's arguments have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. US 2002/0129374 in view of Grau et al. US 5,862,451

Re claim 10, Freeman discloses a digital receiving apparatus comprising (fig.4): an information separating unit (*demux 106A/B*) for reproducing a stream of demodulation signal (*a multiplexed signal that contains video, audio and data*), and separating it into stream signals on multiplexed respective channels for output (*multiplexed signal are separated into respective devices; para#89 lines 1-5 and para#84 lines 5-13*); a decoding unit (*110 A/B*) for decoding and outputting said stream signals (*para#116*); a control unit (*microprocessor;108*) for switching and controlling a stream signal for the decoding unit to decode out of the stream signals on said

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respective channels (*para#87; the microprocessor controls the selection of the RF channel that is demodulated by the demodulator 102 and para#83 lines 5-10*); and a storing unit (120) for storing matching information the data types of the stream signals on the respective channels (*para#83 RAM/ROM stores user's input and profile information*), wherein said control unit determines the matching relationship between said physical information during reception (*user's input and profile information; para#103*) and the data type of the stream signal on a channel selected out of said channels based on said matching information (*para#107; during reception the switching occurs during the gap (340). By encoding at a lower rate than the capacity, extra time is created at GOP (group of pictures) and switches (seamless switching) to the stream signal on another channel (para#190; seamless switching from digital data stream in channel A to another digital data stream channel B)* and makes said decoding unit (*decoder; 572*) decode it when the control unit (*microprocessor*) determines that said physical information (*based MPEG schemes*) during reception and the data type of the stream signal on said selected channel do not conform to a predetermined relationship (*para#194; the microprocessor sends a commands to digital demux/decoder which of the digital stream signals need to strip out the composite signals from channel B. The selected signals are forwarded to the decoder (574/575). The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer*).

Freeman does not disclose channel selection based on quality measurements.

In the same field of endeavor, however, Grau teaches channel selection based on quality measurements (*col. 11 lines 21-29; the quality is selected by CAU, or*

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*computer program executing on a data processing connected to communication system)*

Therefore, taking the combined teaching of Freeman and Grau as a whole would have been rendered obvious to one skilled in the art to modify Freeman to perform the channel selection based on quality measurements as taught by Grau for the benefit of eliminating interference (col. 8 lines 4-13).

Re claim 11, the modified invention as claimed in claim 10, wherein the stream signal on said another channel is a stream signal (*digital data stream channel A*) of a data type different from the data type of the stream signal on said selected channel (*digital data stream channel B; para#192, \_Freeman*).

Re claim 12, the modified invention as claimed in claim 10, wherein the stream signal on said another channel has a data type conforming to a predetermined relationship with said physical information during reception (*para#194; the microprocessor sends a commands to digital demux/decoder which of the digital stream signals need to strip out the composite signals from channel B. The selected signals are forwarded to the decoder (574/575). The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer, \_Freeman*)

Re claim 13, the modified invention as claimed in claim 10, wherein said physical information is a bit error rate (col. 7 lines 31-40 and col. 15 lines 64-67 Grau).

Re claim 14, the modified invention as claimed in claim 10, wherein if said control unit (*microprocessor*) determines that said physical information during reception (*user's input and profile information; para#103*) and the data type of the stream signal of said



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selected channel do not conform to a predetermined relationship (*para#194; the microprocessor sends a commands to digital demux/decoder which of the digital stream signals need to strip out the composite signals from channel B. The selected signals are forwarded to the decoder (574/575). The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer*), the control unit (*microprocessor*) searches for a stream signal on said another channel (*digital data stream channel B;para#192*), having a data type conforming to the predetermined relationship with said physical information during reception (*MPEG schemes;para#193*), based on said matching information, and switches to the stream signal on said different channel based on the search result (*The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer;para#194, Freeman*).

Re claim 15, Freeman discloses a method of reception of a digital receiving apparatus, comprising (fig.4):

an information separating step of (*demux 106A/B*) for reproducing a stream of demodulation signal (*a multiplexed signal that contains video, audio and data*), and separating it into stream signals on multiplexed respective channels for output (*;multiplexed signal are separated into respective devices; para#89 lines 1-5 and para#84 lines 5-13*); a decoding step of (*110 A/B*) for decoding and outputting said stream signals (*para#116*); a control step of (*microprocessor;108*) for switching and controlling a stream signal for the decoding unit to decode out of the stream signals on said respective channels (*para#87; the microprocessor controls the selection of the RF channel that is demodulated by the demodulator 102 and para#83 lines 5-10*); and a

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storing step of (120) for storing matching information the data types of the stream signals on the respective channels (*para#83 RAM/ROM stores user's input and profile information*), wherein said control step of determines the matching relationship between said physical information during reception (*user's input and profile information; para#103*) and the data type of the stream signal on a channel selected out of said channels based on said matching information (*para#107; during reception the switching occurs during the gap (340). By encoding at a lower rate than the capacity, extra time is created at GOP (group of pictures) and switches (seamless switching) to the stream signal on another channel (para#190; seamless switching from digital data stream in channel A to another digital data stream channel B)* and makes said decoding step of (*decoder; 572*) decode it when the control unit (*microprocessor*) determines that said physical information (*based MPEG schemes*) during reception and the data type of the stream signal on said selected channel do not conform to a predetermined relationship (*para#194; the microprocessor sends a commands to digital demux/decoder which of the digital stream signals need to strip out the composite signals from channel B. The selected signals are forwarded to the decoder (574/575). The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer*).

Freeman does not disclose channel selection based on quality measurements.

In the same field of endeavor, however, Grau teaches channel selection based on quality measurements (*col. 11 lines 21-29; the quality is selected by CAU, or computer program executing on a data processing connected to communication system*)

Therefore, taking the combined teaching of Freeman and Grau as a whole would have been rendered obvious to one skilled in the art to modify Freeman to perform the channel selection based on quality measurements as taught by Grau for the benefit of eliminating interference (col. 8 lines 4-13).

Re claim 16, Freeman discloses a computer program to be executed by a computer arranged in a digital receiving apparatus (*fig.4;para#70*), the computer program comprising: an information separating step of (*demux 106A/B*) for reproducing a stream of demodulation signal (*a multiplexed signal that contains video, audio and data*), and separating it into stream signals on multiplexed respective channels for output (*;multiplexed signal are separated into respective devices; para#89 lines 1-5 and para#84 lines 5-13*); a decoding step of (*110 A/B*) for decoding and outputting said stream signals (*para#116*); a control step of (*microprocessor;108*) for switching and controlling a stream signal for the decoding unit to decode out of the stream signals on said respective channels (*para#87; the microprocessor controls the selection of the RF channel that is demodulated by the demodulator 102 and para#83 lines 5-10*); and a storing step of (*120*) for storing matching information the data types of the stream signals on the respective channels (*para#83 RAM/ROM stores user's input and profile information*), wherein said control unit determines the matching relationship between said physical information during reception (*user's input and profile information; para#103*) and the data type of the stream signal on a channel selected out of said channels based on said matching information (*para#107;during reception the switching occurs during the gap (340). By encoding at a lower rate than the capacity, extra time is*

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*creates at GOP (group of pictures) and switches (seamless switching) to the stream signal on another channel (para#190; seamless switching from digital data stream in channel A to another digital data stream channel B) and makes said decoding step of (decoder;572) decode it when the control unit (microprocessor) determines that said physical information (based MPEG schemes) during reception and the data type of the stream signal on said selected channel do not conform to a predetermined relationship (para#194; the microprocessor sends a commands to digital demux/decoder which of the digital stream signals need to strip out the composite signals from channel B. The selected signals are forwarded to the decoder (574/575). The decoder switches from the current displayed to newly selected signal and loads the stream from the buffer).*

Freeman does not disclose channel selection based on quality measurements.

In the same field of endeavor, however, Grau teaches channel selection based on quality measurements (*col. 11 lines 21-29; the quality is selected by CAU, or computer program executing on a data processing connected to communication system*)

Therefore, taking the combined teaching of Freeman and Grau as a whole would have been rendered obvious to one skilled in the art to modify Freeman to perform the channel selection based on quality measurements as taught by Grau for the benefit of eliminating interference (col. 8 lines 4-13).

Re claim 17, a recording medium (ROM/RAM) containing the computer program according to claim 16 (para#70, Freeman).

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rahel Guarino whose telephone number is (571)270-1198. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Payne David can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rahel Guarino/  
Examiner, Art Unit 2611

/David C. Payne/

Supervisory Patent Examiner, Art Unit 2611